

FEAR OF SUCCESS IN SINGAPORE :
AN EXPLORATORY STUDY

A thesis
submitted in partial fulfilment
of the requirements for the Degree
of
Master of Science in Psychology
in the
University of Canterbury
by
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University of Canterbury
1989

ACKNOWLEDGEMENTS

A special thanks to Dr. Colleen Ward for her time, patience, and guidance throughout the preparation of this thesis. I could not have asked for a better supervisor.

Thanks also to Mrs. Gillian Finnegan for her assistance with the computer, and Jumma Paul for kindly proofreading the final manuscript.

I am indebted to the Presidents' and Committee Members of the National University of Singapore Malay Language Society; Muslim Students' Society; Indian Cultural Society; Hindu Society; and Tamil Language Society for helping me distribute the questionnaires. I am most grateful to the women who willingly participated in this study.

Sincere thanks to friends in the department who so generously gave their moral support and help when it was needed.

Most of all, I am grateful to my family for their love, support, and constant encouragement throughout my years of study. I am especially grateful to my late uncle and guardian, Teja Singh, who helped make my dream a reality.

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ABSTRACT

One hundred and five female first year undergraduates of Chinese, Malay and Indian origin participated in a study investigating the construct validity of "fear of success" in Singapore. Fear of success was examined together with personal, personality and attitudinal variables : sex-role identity, locus of control, idiocentrism-allocentrism, attitudes towards women, affiliative tendency, sensitivity to rejection, academic ability, educational goal, environment and course choice, as well as mother's educational and occupational status. The results indicate that only affiliative tendency and sensitivity to rejection predict fear of success in Singaporean women. These findings are discussed in light of the social and economic framework, socialization practices, and interpretation of success in Singapore. It is recommended that future research examine the definition of success for the sample or culture under investigation so as to gain a better understanding of achievement strivings in general.

INTRODUCTION

Fear of success (FOS) was first introduced by Horner (1968) who postulated that it is a stable personality disposition to inhibit achievement motivation in success-oriented situations and is acquired early in life in conjunction with sex-role standards. She investigated this motive by presenting subjects with verbal TAT

leads : "After first term finals, Anne (John) finds herself (himself) at the top of her (his) medical school class". Horner found that 66% of women and 9% of men wrote a story indicating fear of success in response to the medical school cue. Stories that suggested anxiety about fear of loss of affiliative ties, concern about one's normality or femininity, and denial of the cue altogether were classified as fear of success imagery. She concluded that women fear success because of the negative connotations associated with it, that is, social rejection and a perceived loss of femininity.

To find out how FOS was related to achievement behaviour, Horner tested women alone and in mixed-sex competitive settings on a series of achievement tests (verbal and arithmetic). She found that women low in FOS performed significantly better in competitive settings than alone, and the reverse was seen for women high in FOS. It was reasoned that women who are highly motivated to achieve and who are capable of achieving are more susceptible to FOS.

Horner's theory on FOS has led to an abundance of research. While Horner's work has received some support, the status of FOS remains controversial, highlighting a need for further investigations.

This introduction, which follows, consists of six main sections. First, the theoretical background on FOS will be reviewed. Second, a summary of the early research and methodological and theoretical criticisms of FOS research will be presented. Third, FOS research in the eighties will be reviewed to show recent developments in this area. Fourth, a critical examination of cross-cultural research on FOS will be included. Fifth, the rationale and aim of this study will be explained. Finally, the hypotheses for this study will be stated.

Theoretical Background of FOS

In 1953, McClelland, Atkinson, Clark and Lowell published their first findings on achievement motivation. The need to achieve was isolated through the use of the Thematic Apperception Test (TAT). Exploratory studies examining the relationship between TAT scores on need for achievement and performance led to the notion that the strength of motivation to achieve at a particular task in a specific situation must be jointly determined by an achievement motive, the motive to approach success and the motive to avoid failure, and an expectancy concerning the consequences of action. In other words, achievement is a function of the strength of a motive to approach success minus the strength of a negative motive to avoid failure. The incentives and expectancies of success and

failure mediate each motive. This can be expressed in mathematical terms as

$$: \quad T_a = (T_s - T_f).$$

Since its conception much research has been carried out investigating achievement motivation but only in relation to male subjects. Female subjects provided contradictory and ambiguous data which did not fit the existing theory of achievement motivation (Alper & Greenberger, 1967; French & Lesser, 1964; Lesser, Krawitz & Packard, 1963; Veroff, Feld & Crockett, 1966). However, one consistent finding for female subjects has been that they obtain higher anxiety test scores than male subjects. It has been suggested by Freud, (1933); Macoby, (1963); and Mead (1949) (cited by Horner, 1968, p. 223) that women do not perceive behaviour leading to success in a competitive achievement situation as sex-appropriate. To be successful one needs to be competitive and aggressive -- behaviours which exhibit masculine traits. Women, thus, are more prone to anxiety than men in testing or achievement-oriented situations because success may lead to certain negative consequences such as loss of femininity and social rejection.

Horner (1968) expanded on these ideas by suggesting that anxiety about success may be the factor underlying sex differences in achievement motivation. She proposed an addition to the concept of achievement motivation called the "motive to avoid success" or, more commonly, "fear of success" (FOS), mathematically expressed as $T_a = (T_s - T_f) - T_s$.

According to Horner (1968, p. 224), the motive to avoid success is :

"1) a stable characteristic of the personality acquired early in life in conjunction with sex-role standards. It was conceived as a disposition

(a) to feel uncomfortable when successful in competitive achievement situations because such behaviour is inconsistent with one's femininity, and (b) to expect or become concerned about social rejection following success in such situations.

2) more characteristic of women than men.

3) evident only in women who are highly motivated to achieve and/or highly capable of achievement.

4) more strongly aroused in competitive achievement situations."

Thus, women who exhibit such qualities will be highly anxious and inhibited in achievement situations.

Horner investigated FOS by using a fantasy-based measure. She administered verbal TAT leads -- " After first term finals, Anne (John) finds herself (himself) at the top of her (his) medical school class" to her subjects who were asked to write four-minute stories to this cue. The female cue was given to 90 women and the male cue to 88 men. Horner examined the stories and identified three themes that she thought would theoretically indicate "fear of success" :

1). social rejection, fear of losing friends as a result of success;

2). fears and negative feelings because of success;

3). bizarre or hostile responses, including denial of the cue.

Stories were scored on a present/absent basis using these classifications. Horner found that 66% of the women and only 9% of the men showed fear of success.

To investigate the relationship between FOS and achievement behaviour, Horner tested the same subjects alone and in mixed-sex

competitive conditions on a series of achievement tests (verbal and arithmetic). She found that subjects low in FOS (93%) performed significantly better in competitive settings than when alone. Seventy-seven percent of the women who feared success did better alone than in competition.

Immediately following their performance in each of the experimental conditions, the subjects were asked to indicate on a scale from 1 to 100 "How important was it for you to do well in this situation." The high FOS women reported that it was more important for them to do well when they worked alone than in a competitive situation. The low FOS women, on the other hand, reported that it was important to succeed no matter what the setting.

These findings gave support to Horner's theory on FOS making it the most popular and widely researched topic in social and personality psychology in the 1970s, and it has retained considerable appeal in contemporary psychology.

Early Research on FOS

Most of the early research on FOS employed the verbal TAT cues from Horner's (1968) study. FOS was studied in relation to various other factors, including sex-role identity (Alper, 1974; Figurelli, 1978; Gayton, Havu, Barnes, Ozman, & Bassett, 1978; Peplau, 1976), causal attributions (Bar-Tal & Frieze, 1977; Feather & Simon, 1973; Frieze, 1975), work-roles and stereotypes (Breedlove & Cicirelli, 1974; Feather & Simon, 1976), cooperation-competition (Karabenick, 1977; Romer, 1975), locus of control (Midgley & Abrams, 1974; Thurber & Friedli, 1976), coeducation (Winchel, Fenner &

Shaver, 1974), affiliation (Karabenick, 1977), mother's attitudes to work (Reinhard, 1978), age (Monahan, Kuhn & Shaver, 1974) and attitudes towards women (Peplau, 1976). Replications of Horner's study (1968) were also conducted (Hoffman, 1974; Romer, 1975). These early investigations were an attempt to validate Horner's theory on FOS as well as to make the concept more concrete.

Despite this abundance of research, the concept of FOS still seems ambiguous. Data from some of these studies have been inconsistent and have failed to replicate Horner's findings. Zuckerman and Wheeler (1975) reviewed sixteen studies and found that nine showed more fear of success imagery in women while seven reported more of such imagery in men. These findings were contrary to Horner's assumption that FOS is more common in women than men.

Hoffman (1974) replicated part of Horner's study (story cue) using subjects in the honors program from the same university setting (University of Michigan). She found that frequency of FOS for females was the same as in Horner's study, but for males it increased from 9% to 77%. Another replication study (Romer, 1975) found no sex differences or age trends in FOS imagery. Subjects, regardless of FOS status, performed better in noncompetitive than competitive conditions. Cohen (1976) also found that FOS was equally manifested in both sexes.

Investigations of the relationships between fear of success and measures of sex-role orientation have likewise produced contradictory results. Alper (1974), Figurelli (1977), and Gayton, Havu, Barnes Ozman and Bassett (1978) found that women with more traditional sex-role attitudes

showed high FOS. However, other studies (Corrington, 1976; Peplau, 1976; Gackenbach, Heretick & Alexander, 1979) demonstrated no relationship between fear of success and a traditional, feminine sex-role orientation. Heilbrun, Kleemeir and Piccola (1974), on the other hand, found that in college women high FOS was associated with less traditional attitudes about women's role and a more masculine sex-role orientation.

Another area of contradiction is seen in studies relating FOS to academic performance. Horner (1968) reported that female honors students exhibited FOS. This result was also found by Hoffman (1974), but for honors students of both sexes. Other studies have failed to replicate this finding (Peplau, 1976); whereas Heilbrun et. al. (1974) found that for both male and female subjects who identified more with the father than with the mother, FOS was related to inferior academic performance. FOS and academic performance were not related among subjects who reported greater similarity to the mother.

Horner (1968) hypothesized that women showing FOS perform worse in competition with men than with other women or alone. This relationship has been tested in several studies -- with experimental manipulations such as masculine versus feminine tasks, male versus female competitor, alone versus competitive situation, and feedback of success versus feedback of failure -- and have produced contradictory results. Makosky (1972), Karabenick and Marshall (1974), Karabenick, Marshall and Karabenick (1976), and Romer (1977) have found that women who are high in FOS performed optimally on feminine tasks and with other females or alone. However, results from Feather and Simon (1973), Karabenick (1972),

Morgan and Mausner (1973), Sorrentino and Short (1974), and Heilbrun et. al. (1974) do not support Horner's contention.

Such inconsistencies in the FOS literature has led to major criticisms of Horner's work (Shaver, 1976; Tresemer, 1974, 1976; Ward, 1978; Zuckerman & Wheeler, 1975). The reliability and validity of the FOS fantasy-based measure has also been questioned.

The FOS fantasy-based measure was found to be unreliable because firstly, there was no scoring manual to follow. This meant that different studies may have used different scoring systems. On commenting about coding procedures, Tresemer (1974) suggested that a common coding mistake has been the labeling of all negative themes in the story as fear of success imagery. The correct procedure is, of course, to score only negative consequences of success as fear of success. In addition, coding bias may have been a problem in many of the studies. Robbins and Robbins (cited by Zuckerman & Wheeler, 1975, p. 940) reported that female judges were more likely to find FOS imagery in responses to the Anne cue than were male judges. Finally, most studies have used only a single cue to elicit imagery, as Horner did, (females respond to the Anne cue and males to the John cue) thus the judges know the sex of the respondent and FOS scores may be influenced by the judges' expectancies. When investigators have used multiple cues, the correspondence of FOS scores across cues have been low (Levine & Crumrine, 1975; Morgan & Mausner, 1973; Spence, 1974; Tresemer, 1974; Weston & Mednick, 1970).

A further criticism of FOS concerns the Anne cue used by Horner. Several investigators have suggested that negative responses to this cue may

in fact be reflecting cultural stereotypes about women's achievement rather than the subjects' anxiety about success (Alper, 1974; Feather & Simon, 1973; Feather & Raphelson, 1974; Juran, 1979; Monahan, Kuhn & Shaver, 1974; Winchel, Fenner & Shaver, 1974; Zuckerman & Wheeler, 1975). These investigators administered the Anne and John cue to both sexes and found that more negative imagery was elicited in response to the Anne cue by both males and females, also females tend to produce positive imagery to the male cue. These findings imply that subjects' responses to the cue are determined by the cultural norms and mores on female achievement.

In addition, Katz (cited by Tresemer, 1974, p. 83) argued that if responses to the Anne cue reflect cultural stereotypes than making Anne's success less deviant should reduce the incidence of FOS. She described Anne as being a top medical student in two settings -- a male dominated class and a female dominated class. Not surprisingly, FOS imagery decreased in the second setting, suggesting that the female subjects were more concerned about Anne being deviant than being a success.

An important point to note here is that projective tests using cross-sexed stimulus cues will inadvertently lead to stereotypical responses. It is therefore important, as Ward (1978) has suggested, that sex-appropriate stimulus cues be used to obtain valid responses.

The evidence presented highlight the ambiguity, poor reliability and predictive validity of the FOS projective measure. These shortcomings resulted in an improved version of Horner's original fantasy-based measure of FOS (Horner, Tresemer, Berens & Watson, 1973) and the development of

various objective measures of FOS (Cohen, 1976; Good & Good, 1973; Pappo, 1972; Zuckerman & Allison, 1976).

Research on FOS in the Eighties

FOS lives on in the 1980s with researchers still trying to define the concept by linking it to various other variables such as affiliation (Hyland & Mancini, 1985), sex-role orientation (Cano, Solomon, & Holmes, 1984; Kearney, 1982; Werger, 1986), personality characteristics (Werger, 1986), mother-daughter relationships (Goldstein, 1981), significant others (Balkin, 1987), and year as well as program in college (Santucci, Terzian & Kayson, 1989). In addition, more research is being conducted in work settings to find out how women react to success in such situations. Finally, various investigators have attempted to use developmental and clinical explanations to define FOS. The concept has been investigated by employing one of these instruments -- Horner's fantasy-based measure (Horner, Tresemer, Berens & Watson, 1973), objective tests (Cohen, 1976; Good & Good, 1973; Ho & Zemaitis, 1981; Pappo, 1972; Zuckerman & Allison, 1976), and an idiographic approach utilizing biographical interviewing (Paludi & Fankell-Hauser, 1986).

Most of the research has revealed that women still evince FOS to a certain degree. Kearney (1982), Cano, Solomon and Holmes (1984), and Muller (1986) found that women who exhibit an androgynous or masculine sex-role orientation have low levels of fear of success compared to traditional women. Pederson and Conlin (1987) conducted a follow-up study nineteen years after Horner collected her data in 1968 and found that the

percentage of women exhibiting high FOS has remained unchanged (64% compared to 66% in 1968). However, the study revealed a shift toward less rejection of success and an increase in the questioning of the value of success. This is further supported by Paludi and Fankell-Hauser (1986) who found that the women in their sample were consciously questioning the value of success. These findings show that women are aware of the challenges and barriers that they have to overcome to realize achievement. It will be interesting to discover if this trend is also reflected in a cross-cultural setting.

Hyland, Curtis and Mason (1985) have shown that FOS is related to the masculinity subscale of sex-role inventories but not to the femininity subscale. They reasoned that FOS is associated with a loss of affiliation as a result of the presence of masculine traits which would mean a positive relationship between the motives FOS and need for affiliation. This was supported by Goldstein (1981) and Balkin (1987), although Hyland and Mancini (1985) failed to replicate these findings. The reason for these contradictory results may be explained in terms of the measurement of the need for affiliation motive. Some studies used a projective test and others an objective test which means that different facets of the motive may have been tapped.

A recent study (Santucci, Terzian & Kayson, 1989) compared FOS with sex, year in college and college program and concluded that women still evince more FOS than men. However, there was a decline in overall FOS scores which reflects the trend seen in the past decade.

On the whole, past and present research on FOS has yielded inconclusive results; however, some of Horner's basic assumptions have been supported. Firstly, there is a tendency for FOS to be more frequently elicited by women in competitive male-dominated situations, and it is more apparent in sex-typed women. Secondly, early sex-role socialization does play an important part in the achievement motivation of women. Finally, the declining rate of FOS may be the result of changing social norms and attitudes regarding female achievement behaviour.

Cross-Cultural Research on FOS

Most of the research on FOS has occurred in an American culture. To date only a few researchers have studied this concept cross-culturally (Feather & Raphelson, 1974; Popp & Muhs, 1982; Torki, 1985; Weinreich-Haste, 1978; 1984; Yamauchi, 1981).

Feather and Raphelson (1974) employed the projective test used by Horner and administered it to Australian and American samples of undergraduate males and females. The results revealed that Australian males and females and American males wrote a higher proportion of FOS stories to the female cue (51%, 47% and 49%, respectively) compared to American females (27%). Interestingly, the proportion of FOS stories to the female cue in both samples was lower than that in the original study conducted by Horner (66%) and in subsequent studies reported by her (Horner, 1970, 1972). However, the proportion of FOS stories to the male cue increased. These results were interpreted as reflecting sex-role stereotypes in

the Australian sample and changing attitudes towards female achievement in the American sample.

Popp and Muhs (1982) compared the incidence of fear of success, using an objective test, amongst Mexican-American and Anglo-American males and females in a work-setting. They found that the former group evinced higher FOS. This result is consistent with the achievement motivation literature on Mexican-Americans which suggests that achievement for this minority group is geared to and for the family and/or group rather than the individual. Cooperation and assistance are deemed more important than competition. Thus, FOS is very much related to a fear of loss of affiliative ties. A similar result was found with a Japanese sample of males and females who placed much emphasis on cooperation and affiliation (Yamauchi, 1986). These findings are important because they highlight the fact that the success construct is conceptualized very differently in other cultures, particularly in relation to cooperation and competition.

The relationship between FOS and femininity in an Arab culture was researched by Torki (1985). He administered Arabic versions of the FOSS -- Fear of Success Scale (Zuckerman & Allison, 1976) and the masculinity-femininity scale (MF) of the MMPI (Torki, 1980) to female undergraduates at Kuwait University. Results showed that there was no correlation between FOS and femininity, meaning that Kuwaiti women do not suffer from FOS as American women do. Torki states that this difference is due to the fact that the Arab culture has clearly defined the sex-role standards for males and females. An Arab female is allowed to strive for intellectual and career success but at the same time she also aims to be a wife and mother. Thus, the

woman's family role in Arab culture undermines the competition between the sexes in the public arena.

Weinreich-Haste (1978, 1984) studied fear of success amongst British male and female undergraduates and 15-year olds. She found no evidence to support Horner's assumption that females are more prone to anxiety in success-oriented situations. Females, in both samples, were more likely than males to describe success or recovery from failure in their stories. However, they did expect to encounter discrimination and negative responses from significant others in sex-inappropriate fields but were not particularly upset by it. These results suggest that the attitudes towards female achievement and the prevailing sex-role norms allow British women to feel comfortable about success and to pursue careers in sex-inappropriate fields.

Several implications may be drawn from the cross-cultural studies :

1. There are cultural differences attached to the concept of FOS.
 - a). Conceptualization of success differs from culture to culture.
In Western cultures, success is linked to competitive and individualistic goals whereas in other cultures it may be linked to cooperation and collectivism.
 - b). Sex-role socialization practices differ from culture to culture with some cultures encouraging females to be simultaneously achievement-oriented and compliant with female sex-role standards. However, other cultures may perceive femininity and achievement as incompatible.
2. Horner's conceptualization of FOS may not seem to be generalizable to all women, especially women who are highly achievement oriented.

RATIONALE and AIM

The Cultural Setting

The major objective of the current research is to examine the construct validity of FOS in a cross-cultural setting, namely Singapore. The reasons for doing this are firstly, to search for universality : Does this psychological construct which was formulated in a Western, individualist culture generalize to an Eastern, collectivist culture? A second reason is to seek out any differences which may occur with respect to the FOS motive and the conceptualization of success. These differences will reflect the conceptual relevance of success, as perceived by Horner, in this culture.

Singapore is one of the most modern and industrialized countries in Asia because of its one and only natural resource -- people. The people have strived diligently against all odds to make the country stable and prosperous. The government now believes that it is important to carry on in this manner, so productivity and excellence in all facets of life are stressed. It is not enough to be second best, one must always work hard to be on top.

This competitiveness is very much evident in the educational system and is most obvious at the tertiary level. Admittance to the only university (National University of Singapore, NUS) is limited and one has to be the top ten percent of 'A' level graduates, 'the cream of the crop,' to gain entry. In addition, males and females are not allowed entry on an equal basis. For example, females are restricted to a quota of one-third the intake in the Faculty of Medicine.

Since 1982, more females than males have been gaining admission to the university. To balance this ratio, NUS lowered the entry requirements;

particularly the second language requirement in which males tend to do less well than females. However, this has not helped correct the imbalance, to date there are still more females than males entering the university.

Another problem faced by the government is that of unmarried graduate women. The Prime Minister in a speech at NUS, (1986) expressed regret over the equal opportunities program that he had established for Singaporean women. He praised the Japanese tradition of keeping their women in low positions such as translators or tea-servers. He had earlier made a statement that equal opportunities were important, but women should not be allowed to pursue careers such as medicine and engineering which will give them less time to carry out their duties as wives and mothers (The Singapore Bulletin, Sept 1983). In line with this comment, the Ministry of Education made home economics compulsory for all secondary one and two schoolgirls and at the same time barred them from technical studies. Schoolboys, on the other hand, were not to have the option of doing home economics. The Minister of Education stressed that "girls should be girls" and therefore trained for their future roles as "wives, mothers and workers" (Straits Times, Sept 4, 1984). Despite all these policy changes, women still outnumber men in the university.

Even though there are more women at the University they still seem to opt for traditionally feminine areas of study, and it is not surprising that women are under-represented in professional fields such as medicine, engineering and architecture (Wee, 1987, p. 15). Youths in Singapore consider economics and commerce as subjects with the best job opportunities whereas arts subjects have the poorest job opportunities. More

females than males consider economics, commerce and social sciences to be appropriate for study and occupational pursuits. Whereas males consider engineering, architecture and law as having better job prospects (Tai Ching-Ling, 1980). One can conclude from these findings that women have opted for the semi-professional jobs. The concentration of women in such areas of work may reflect their conformity to social values with respect to sex-role standards.

Although Singapore may be one of the most modern, affluent, and technologically advanced countries in South-East Asia, the government does not want its people to adopt the individualistic and selfish qualities that are perceived as characteristic of the western world. The Prime Minister has emphasized repeatedly that only the good points of western culture will be imported into Singapore. Thus, the people have been strongly advised to cling to their traditional values and to work together for the betterment of the nation. Such ideology typifies a collectivistic society as Hofstede (1980) has demonstrated.

On the other hand, this success-oriented society has instilled a sense of competitiveness in the majority of its population. The government is constantly reminding the people to do their best and excel for the benefit of the country; parents urge their children to be successful in everything they undertake; children compete in school to be the best; adults compete for and at work -- everyone wants to be better than the next person. Competition has become a way of life for the average Singaporean. Such an environment could be a breeding place for western individualism and selfishness which the authorities are so afraid will creep into the society.

These important factors, that is, a success-oriented environment and the norms on sex-role socialization as well as the tension between individualist and collectivist goals make this a suitable culture to study the cross-cultural construct validity of FOS.

Predictor Variables

This study will attempt to investigate FOS in relation to other personality characteristics such as sex-role orientation, locus of control, collectivism-individualism, affiliative tendency and sensitivity to rejection. It will also be studied in relation to previous school environment, academic ability, course choice, educational goal, attitudes towards women and mother's educational and occupational status.

Sex-Role Orientation

The sex-role standards for males and females in Singapore are very clearly defined as demonstrated above by the comments of prominent government officials. Women, as perceived by the three major ethnic groups in Singapore -- Chinese, Indian, and Malay -- must fulfil their duties as wives and mothers (Ryan, 1971). Early sex-role socialization is found not only in the home but also in school. An analysis of primary school reading textbooks revealed the presence of stereotypes for males and females (Quah, 1980). Female roles were portrayed in higher proportions than male roles. The most commonly mentioned sex-role for females is that of housewife compared to husband cum breadwinner for males. Females were portrayed as being teachers, nurses and engaging in activities dealing with

child-rearing, shopping and personal care. The sex-role stereotypes also involve norms on appropriate behaviour in terms of dressing and play activity. Stories about females are always centred around the home or family. Interestingly, the frequency of references to sex-role tends to increase from primary one onwards. Such socialization will no doubt have an effect on one's sex-role orientation. A good example of this is found in a study surveying the life values of youth in Singapore (Tai Ching-Ling, 1980). Females placed more emphasis on the importance of education than males, but agreed with males that men in general should have more education than women. The majority of females (67%) consider education at the primary or secondary level as being sufficient for women. Why is this so? One reason may be that a Singaporean female perceives that her first priority in life is to be a wife and mother. Men, on the other hand, should be highly educated so that they can be good providers. Thus, early sex-role socialization does have an effect on sex-role orientation which in turn may impact upon the development of FOS.

It has been suggested that mother's orientation to work or family may have an effect on the sex-role attitudes of female children (Baruch, 1972; Kagan & Moss cited by Freeman, 1971, p. 132). Boey (1979) found that 15-year old Singaporean females who had employed mothers were less likely to endorse a traditional view of women than daughters of non-working mothers. Daughters of working mothers also tended to show a higher level of achievement motivation and attained a higher level of academic achievement. It is therefore not surprising that women who have non-

working mothers will value feminine competence less highly and exhibit FOS, especially in male-dominated situations.

Locus of Control (LOC)

Fear of success has also been studied together with locus of control (Feather & Simon, 1973; Midgley & Abrams, 1974; Thurber & Friedli, 1976; Bar-tal & Frieze, 1977). All these studies show that high levels of FOS in women are associated with high external locus of control. An external locus of control is adopted when one believes that the reinforcement is not due entirely to one's actions ; it is more a result of luck, chance, fate, or under the control of powerful others. On the other hand, a belief in internal control occurs when an event is perceived to be contingent upon one's behaviour or some permanent characteristics of the person (Rotter, 1966).

Females exhibiting FOS take less responsibility for their success and even feel ashamed of their performance. Success is attributed to luck (external LOC) and failure to lack of ability and effort (internal LOC). Such perceptions lead these females to have lower expectancies for continued success. Midgley and Abrams, (1974) found that females with high external control felt more victimized by circumstance and were less able to act positively on their environments. They seemed less independent and were less likely to step beyond the traditional feminine role. Another study revealed that females who are high in FOS and external control have lower levels of confidence in their performance (Feather & Simon, 1973).

Cross-cultural studies on locus of control have found Asians to be more external than Westerners (Hsieh, Skybut & Lotsof, 1969; Evans, 1981).

In addition, some studies have found that Asian females in general tend to be more susceptible to external controls than males, probably due to childhood socialization as argued in the literature (Lao, Chuang & Yang, 1977; Khanna & Khanna, 1979). It will therefore be interesting to learn if this holds true for females in Singapore and if external locus of control is an important predictor of FOS.

School Environment

Another factor which will be considered in this study is previous school environment -- co-education/nonco-education. Winchel, Fenner and Shaver (1974) have shown that females from co-educational schools evince more FOS than those from nonco-educational schools. This finding is in line with Horner's assumption that females exhibiting high levels of anxiety in male-dominated competitive situations tend to inhibit their academic performance. Further support for this relationship by way of more research is unavailable. This study will attempt to determine if school environment contributes to FOS in Singaporean women.

Course Choice and Academic Ability

Horner (1968) found that all the women in her sample who evinced FOS were majoring in traditionally feminine areas of study, and tended to have high intellectual ability and histories of academic success. Hoffman (1974) also concluded from her findings that women of high academic ability suffer from FOS. This study will, therefore, examine the relationship

between course choice -- female/male dominated, as well as academic ability and fear of success.

Educational Goal

Horner (1968) also found that the high FOS women aspired to traditional female careers such as housewife, mother, nurse, and schoolteacher. Whereas the low FOS women aspired to graduate degrees and careers in such scientific areas as math, physics and chemistry.

In addition, a pilot study conducted by Schwenn, 1970 (cited by Horner, 1970, p. 118) revealed that women who evinced high FOS aspired towards a more traditional, less ambitious career (or none at all) or even decided to drop out of university altogether. These findings have prompted the present study to investigate the relationship between FOS and educational goal.

Idiocentrism-Allocentrism

A new area of study in cross-cultural research and one which is likely to be relevant to the investigation of achievement orientation is in the measurement of individualism-collectivism or idiocentrism-allocentrism (Hui, 1988; Hui & Triandis, 1986; Triandis & Bontempo et. al., 1986; Triandis, Leung, Villareal, & Clack, 1985). Individualism may be defined as a lack of concern for others, one is only interested in one's own survival. On the other hand, there are those who see themselves as part of a larger group. A sense of "we-ness" is very much evident in a collectivistic community.

The terms individualism and collectivism are used to characterize cultures and societies, whereas the terms idiocentrism and allocentrism are used to characterize individuals. Triandis, Leung, Villareal, and Clack (1985) found that within as American culture (Illinois) there are individuals who differ on the idiocentric-allocentric dimension. The idiocentrics reported being concerned with achievement and were lonely, whereas the allocentrics reported low alienation and receiving much social support. Similar results were found in Puerto Rico (Triandis, Bontempo, Villareal, Asai, & Lucca, 1988). This distinction of terms at the cultural and individual levels of analysis is therefore useful and important because it helps highlight the behaviour of allocentrics and idiocentrics in individualistic and collectivistic cultures (Triandis, 1989).

Hui and Triandis (1986) surveyed a sample of social scientists in different parts of the world on their understanding of individualism-collectivism. Seven categories of the conceptualization of collectivism arose from this survey. These are :

- "1. Consideration of implications (costs and benefits) of ones own decisions and/or actions for other people.
2. Sharing of material resources.
3. Sharing of non-material resources (such as time and effort).
4. Susceptibility to social influence.
5. Self-presentation and face-work.
6. Sharing of outcomes.
7. Feeling of involvement in other's lives."

Hofstede (1980) conducted a cross-national study involving 40 countries and found Singapore to be a collectivist country; the United States, Australia, and Great Britain are the most individualist countries and Venezuela, Columbia and Pakistan the most collectivist. Hui (1988) administered the Individualism-Collectivism Scale (INDCOL) to Hong Kong Chinese as well as American students and found that collectivism and social desirability were positively related among Chinese, but not Americans. Evidence from cross-cultural research has shown that the meaning of success differs from culture to culture and this is very much related to whether the culture is individualist or collectivist (Popp & Muhs, 1982; Yamauchi, 1986). Taking this into consideration, the present study has therefore included this variable to help define the meaning of success for this culture and in turn show how it is related to FOS.

Affiliative Tendency and Sensitivity to Rejection

Research by Hyland, Curtis and Mason (1985), Goldstein (1981), and Balkin (1987) revealed that need for affiliation and FOS are positively related. Cross-cultural research has also found support for this relationship (Popp & Muhs, 1982; Yamauchi, 1981). This study will examine affiliative tendency and sensitivity to rejection, which are determinants of affiliative behaviour (Mehrabian & Ksionzky, 1970), in relation to FOS. According to Mehrabian (1976) persons exhibiting affiliative tendency will actively seek out situations where they will be able to positively relate with others, in terms of attitudes, beliefs, ideas and values. On the other hand, persons exhibiting a sensitivity to rejection will display a lack of confidence and

higher levels of anxiety when interacting with those they like as well as in achievement-oriented situations. It is not surprising then that a person who exhibits high FOS will also exhibit high levels of affiliative tendency and sensitivity to rejection.

Fear of Success Scale (FOSS)

The present research has employed one of the objective measures to study fear of success namely, the Fear of Success Scale (FOSS) (Zuckerman & Allison, 1976). This instrument was chosen because Zuckerman and Allison accept Horner's basic assumptions about FOS, including the hypothesis that females will evince more FOS than males. This hypothesis has been supported with three samples of male and female college undergraduates (Zuckerman & Allison, 1976). The correlation between the FOSS and Horner's original projective measure was found to be .16 for 174 males and .18 for 170 females. Griffiore (1977) found that the revised version of the FOS measure (Horner, Tresemer, Berens & Watson, 1973) and the FOSS instrument were positively and significantly correlated ($r = .30, p < .003$).

Horner also suggested that high fear of success interferes with performance, especially in competitive situations. Zuckerman and Allison (1976) examined this relationship together with scores on the FOSS. They found that subjects, both males and females, with high scores on the FOSS performed poorly on an anagram test. The high FOS subjects, compared to the low FOS subjects, reported that success was not important to them, and also attributed success more to external factors and failure to internal factors. This finding further substantiates the instrument's validity.

To recapitulate, this study will explore the cross-cultural construct validity of FOS and in line with previous research, as reviewed above, examine its relationship to sex-role orientation, locus of control, collectivism-individualism, affiliative tendency and sensitivity to rejection, previous school environment, academic ability, course choice, attitudes towards women, as well as mother's educational and occupational status.

HYPOTHESES

The current research will attempt to construct a predictive model of FOS. It is proposed that the best predictors of FOS will be a traditional female sex-role identity; high academic ability; high levels of external locus of control; affiliative tendency; and sensitivity to rejection; traditional attitudes towards women; co-education; a traditional, female-dominated course of study; educational goal; allocentrism; and mother's low educational and occupational status. The relationship of FOS with these variables will highlight the relevance of this construct in Singapore.

This study will also attempt to explore the cultural differences in the conceptualization of success which may explain, to a certain degree, why and how FOS may affect women of a particular culture. Past researchers have not operationalized the term success in their studies nor allowed their sample of subjects to do so; this may be a limitation in many studies. The present study will correct this flaw by asking the sample to define success for themselves.

METHOD

SUBJECTS

One hundred and five Singaporean female, first year undergraduates enrolled at the National University of Singapore participated in this study. They represented the various faculties such as Science, Commerce and Business Administration, Social Sciences, Arts, Engineering, Computer Science, Law, and Medicine. Of the 105 subjects, 35 were Chinese, 35 Malay and 35 Indian. Subjects were between the ages of 18 to 22 years with the mean age being 19.1 years old ($SD = .76$). All subjects were fluent in the English Language as it is the medium of instruction in school and university.

Previous school environment, for the sample, was co-educational. The grade-point average for the subjects was approximately B. Seventy-four percent obtained grades of B+ or better. About 77% of the sample had chosen traditional, female dominated academic courses such as Arts and Social Sciences, and Science. The rest, 22.9%, had opted for non-traditional, professional courses such as Commerce and Business Administration, Engineering, Computer Sciences, Law and Medicine. Forty-four percent of the subjects stated they would be satisfied with a general degree whereas 35% had plans to attain an Honors degree. Only 11% planned on postgraduate education (Master's degree or higher). Thus, in terms of academic ability, the sample consisted of relatively able young women.

Most of the subjects' mothers (62%) were employed in traditional, low-status jobs such as housewife, maid, food-vendor, and kitchen helper. Only 14% of the mothers were employed in traditional high-status jobs such as teacher, nurse and secretary, and twelve percent were employed in nontraditional, low-status jobs such as production operator, hospital office attendant, and manual worker. The classification of occupations according to status and traditionality/nontraditionality was done on the basis of income and concentration of women in a particular occupation. The educational level of the mothers was as follows : 37% had completed secondary level education; 32%, primary school level; 16.2% had no education; and only 14% had attained education up to pre-university and tertiary levels.

MATERIALS

A 12-page questionnaire was administered to the subjects. The contents included personal information such as age, sex, grades attained at the General Cambridge Examination (Advanced Level), mother's educational level and employment during subject's childhood, (see Appendix A). This was followed by several personality and attitudinal scales measuring masculinity-femininity, fear of success, locus of control, idiocentrism-allocentrism, attitudes towards women, affiliative tendency and sensitivity to rejection. The questionnaire also contained information relating to educational goals and the subject's interpretation of the meaning of success. All questionnaires were prepared and administered in English.

Fear of Success Scale (FOSS)

The Fear of Success Scale was developed by Zuckerman and Allison (1976). It is a 27-item scale with statements describing the benefits of success, cost of success and the subject's attitudes towards success when compared to other alternatives. Of the 27 items, 16 are worded so that agreement reflects high fear of success. Agreement with the remaining 11 items reflects low fear of success. Some of the items were reworded for better clarity for Singaporean subjects. Potential scores on the FOSS range from 0 to 162 with high scores indicating high fear of success. See Appendix C.

Femininity-Masculinity (F-M) Scale

This scale was developed as a result of the poor reliability and validity of the Bem Sex Role Inventory (BSRI) in an Asian context (Ward and Sethi, 1986). It has been documented as being reliable, exhibiting satisfactory norms and standardizations of items, with a Singaporean sample by Ward (unpublished data). The instrument contains 45 items – 15 feminine, 15 masculine and 15 neutral. Subjects are asked to describe themselves on a scale of 1 ("never or almost never true") to 7 ("always or almost always true") for each item (Appendix B). The scale is scored by deriving a masculinity and femininity score for each subject and comparing these scores with the median femininity and masculinity scores of the sample. Classification of subjects as feminine, masculine, androgynous, or undifferentiated is done on the basis of a median-split (see Bem, 1981, for scoring techniques).

Locus of Control (LOC)

Collins (1974) devised a Likert format version of Rotter's Internal-External Locus of Control Scale (1966) which is forced-choice. This study utilized a modified version of Collins's (1974) instrument comprising 20 items. This scale has been used with foreign students by Ward (unpublished data). The items in this scale are arranged so that half of them reflect external LOC and the other half reflect internal LOC. High scores indicate a high level of external locus of control. See Appendix D.

Idiocentrism-Allocentrism Measure

The level of allocentrism was measured by using an open-ended questionnaire (Appendix E). Subjects are asked to complete 20 statements that begin with the words 'I am'. Each response was then examined to determine if it corresponded to any social category. From these ratings the individual's %S (social) score was computed with high percentages of group-referent items indicating high levels of allocentrism. This measure has been found to be reliable and valid when used with American and Chinese samples (Triandis, personal communication, September 20, 1989).

Attitudes towards Women Scale (AWS)

This section focuses on the rights and roles that women ought to have or be permitted to have. The scale consists of 24 items derived from modified and revised versions of the original AWS (Spence & Helmreich, 1974; 1978). The modified version of the scale was found to be highly reliable with a Singaporean student population (Ward, 1984). A few items were

omitted from the Spence and Helmreich (1978) revised version because they were found to be culturally inappropriate. Scores range from 0 to 144 with high scores indicating a pro-feminist, egalitarian attitude. See Appendix F.

Affiliative Tendency and Sensitivity to Rejection

The focus of this section is on affiliative tendency and sensitivity to rejection which according to Mehrabian and Ksionzky (1970) are determinants of affiliative behaviour, a major component of social behaviour. The measuring instruments used were the 26-item Affiliative Tendency and 24-item Sensitivity to Rejection Questionnaires (Mehrabian, 1970). Items from the two measures were intermixed in random order so as to minimize the subject's awareness of the attributes being measured. Scoring for each measure was carried out separately with high scores on both measures indicating high levels of affiliative tendency and sensitivity to rejection. See Appendix G.

Educational Goal

This was measured in terms of the least amount of education that would be considered satisfactory by the subject. The options specified ranged from a general degree to an advanced professional degree. See Appendix H.

Meaning of Success

This section consists of an open-ended question : "What does success mean to you?". The responses were content-analyzed to establish the meaning of success for women in this culture. See Appendix H.

PROCEDURE

Each questionnaire included an explanatory note specifying the purpose of the study as well as anonymity and confidentiality of all information provided. (See Appendix I). Questionnaires were distributed by the researcher, representatives of various societies, such as the Malay Language Society, Muslim Students' Society, Indian Cultural Society, Hindu Society and Tamil Language Society, and a few first year students. Students were approached in the residence halls, along faculty corridors and during the annual general meetings of the various societies. Subjects were allowed to complete the questionnaires in their own free time and return them on the same day or at a later time, whichever being convenient.

Altogether, 230 questionnaires were distributed and 112 were returned; a return rate of 49%. Only 105 were found to be suitable for use in this study as seven were incomplete.

RESULTS

Initial data analysis involved reliability checks on the scales used. Scales that were found to have low reliabilities were reexamined and items with Item-Total Correlations that were low were deleted. Next, correlations, using Pearson product-moment, were carried out between the eleven continuous variables. Finally, Multiple Regression analysis was conducted to ascertain which variables were the best predictors of fear of success. Data were analyzed using SPSS[×] (Statistical Package for Social Sciences) and content analysis.

Psychometric Analyses

Appendix J. shows the means, standard deviations, and score ranges for each scale. These were computed to check for scale variance.

Reliability

The reliabilities of all scales were satisfactory, ranging from .71 to .88. Items with low Item-Total Correlations were deleted for the FOSS, Locus of Control Scale, AWS, Affiliative Tendency Scale and Sensitivity to Rejection Scale. See Table 1.

Table 1Reliability of Scales

Scale	Cronbach Alpha
Femininity Scale	.85
Masculinity Scale	.88
Fear of Success Scale (FOSS)	.73
Locus of Control Scale	.71
Attitudes towards Women Scale (AWS)	.81
Affiliative Tendency Scale	.79
Sensitivity to Rejection Scale	.79

Classification of Sex-role Categories

The median-split method was used on the F-M Scale to classify subjects into sex-role categories : feminine, masculine, androgynous or undifferentiated. A median score, for this sample, was computed for the femininity scale and the masculinity scale. Subjects were classified as androgynous if both the masculine and feminine scores were above the median and undifferentiated if both scores were below the median split. Masculine and feminine classifications resulted from only one score being above the median. The median for the feminine scale was 4.6 and that for the masculine scale was 3.7. Using this information, it was found that 25.7% of the sample were androgynous, 21.9% feminine, 22.9% masculine, and 26.7% undifferentiated.

Idiocentrism-Allocentrism

The %S (social) score was computed for the Idiocentrism-Allocentrism Measure. Results revealed that 33.3% of the sample (N=35) displayed zero %S and only 1.9% (N=2) showed 55%S. 46.8% (N=49) had %S scores ranging from 5% to 40%. Nineteen subjects did not respond to this section of the questionnaire. The results show that a majority of the subjects (48.7%) have an allocentric orientation.

Pearson Product-Moment Correlations

A correlation matrix was carried out amongst the 11 continuous variables to firstly, detect any problems of multicollinearity and secondly, to determine which variables would be significant enough to be entered into a multiple regression equation with fear of success. It was found that Idiocentrism-Allocentrism ($r = .19$, $p < .05$), Affiliative Tendency ($r = .30$, $p < .001$), Sensitivity to Rejection ($r = -.20$, $p < .05$), and Educational Goal ($r = -.18$, $p < .05$) were significantly related to fear of success. See Appendix K.

Multiple Regression

These four variables along with course choice and androgyny (transformed into continuous variables) were entered into a multiple regression equation. Of the 4, only 2 variables, that is, affiliative tendency and sensitivity to rejection remained significant and accounted for 17% of the variance in fear of success $F(6,53) = 2.95$, $p < .05$ (see table 2). Idiocentrism-allocentrism, course choice, androgyny, and educational goal were not significant.

Table 2

Multiple Regression Analysis :
Predictors of Fear of Success.

Variable	Beta	Significance	R ²
Affiliative Tendency	.35	.05	
Sensitivity to Rejection	-.45	.001	
			.17

Fear of success was found to be positively related to affiliative tendency but negatively related to sensitivity to rejection. Thus, high fear of success results in high affiliative tendency but low sensitivity to rejection.

Content Analysis of the 'meaning of success'

Responses were analyzed according to ethnicity and it was found that the meaning of success was identical for the three ethnic groups. Three themes emerged from the analysis, these are :

- 1). Success means working hard to fulfil one's goals in life, in terms of education, career and family, and gaining recognition for all accomplishments. The pride of success should bring happiness to one's self, family and friends.
- 2). Success means to achieve a good balance between marriage and career.

3). Success means having a close network of friends in spite of all the accomplishments one makes in life.

Thus, success in this culture is not for the individual in question only, as it is in Western cultures, but is shared with significant others.

DISCUSSION

The main aim of this research was to investigate the cross-cultural construct validity of FOS by examining its relationship to sex-role orientation, locus of control, idiocentrism-allocentrism, affiliative tendency and sensitivity to rejection, previous school environment, academic ability, course choice, educational goal, attitudes towards women, as well as mother's educational level and occupational status. The results indicate that FOS is significantly related to idiocentrism-allocentrism, educational goal, affiliative tendency and sensitivity to rejection, with the latter two being the most powerful predictors of FOS. There is also evidence to demonstrate a cross-cultural difference in the conceptualization of success.

The present study was neither able to replicate the findings of Peplau (1976) who studied FOS together with academic ability, nor those of Feather and Simon (1973); Midgley and Abrams (1974); Thurber and Friedli (1976); and Bar-Tal and Frieze (1977) who all reported a relationship between FOS and external locus of control. This study was unable to examine the relationship between FOS and previous school environment because all the subjects were from co-educational schools. Finally, attitudes towards women and mother's educational and occupational status did not correlate with FOS. These results highlight the invalidity of the FOS construct in a Singaporean context.

Horner (1968) postulated that it is characteristic of traditionally feminine women of high academic ability and capability to be anxious and uncomfortable in competitive achievement situations. The current study

did not find a relationship between FOS and sex-role identity supporting Corrington (1976), and Gackenbach, Heretick and Alexander (1979). The results do show that FOS is positively related to affiliative tendency and negatively to sensitivity to rejection. This means that high levels of affiliative behaviour and low levels of sensitivity to rejection will result in high FOS. The finding on FOS and affiliative behaviour is consistent with previous research (Hyland, Curtis & Mason, 1985; Goldstein, 1981; Balkin, 1987; Popp & Muhs, 1982; Yamauchi, 1981).

Mehrabian and Ksionzky (1974) report that persons who exhibit high affiliative tendency are generally more outgoing and friendly. They also perceive themselves as being more similar to others, in terms of attitudes, beliefs and values. Their positive attitudes give them greater confidence and lower levels of anxiety in interpersonal relationships. They are particularly more confident in situations where social acceptance concerns are highlighted.

In contrast, persons who exhibit high sensitivity to rejection lack confidence and are more unwilling to affiliate with others holding dissimilar attitudes and status. They are particularly anxious when interacting with those they like, for fear of being rejected. Their overall negative attitudes result in feelings of inadequacy and an inability to cope with interpersonal relationships.

The zero-order correlations from this study reveal that sensitivity to rejection is inversely related to academic ability, and affiliative tendency is positively related to allocentrism. (See Appendix K). The multiple regression results (table 2) indicate that the women who scored low on

sensitivity to rejection and high on affiliative tendency have high FOS. These women also exhibit an allocentric orientation and have a low educational goal. In light of the zero-order correlations stated above these high FOS women may also be high achievers. When these findings are considered from Horner's point of view, it is expected that FOS will be more salient in this group of women, especially in competitive situations

"Success" in this study, as conceptualized by Horner, is confined to competitive, individualistic achievement. The remaining items on the Fear of Success Scale, after deleting those with low item-total correlations, emphasized success in competitive situations (e.g., "In competition I try to win no matter what."; "I am only happy when I am doing better than others."; "I believe I will be more successful than most of the people I know."). Thus, it is expected that the high FOS women who also exhibit high affiliative behaviour will be most anxious in situations where they may have to compete with close friends to succeed. In contrast, the low FOS women do not seem to feel threatened or anxious in success-oriented situations as demonstrated by their high educational goal

On the whole, the present research demonstrates that this sample of Singaporean women do not suffer from FOS in the same way that their American counterparts do. This difference may be due to the fact that in Singapore female achievement is not perceived as being incompatible with femininity. Women are actually encouraged to develop achievement goals that are intellectually and/or career-oriented and also expected, at the same time, to comply with appropriate sex-role standards. In other words, Singaporean women have dual roles to play; they have to help in the

economic development of the country by participating in the labour force and simultaneously assume the traditional, domestic role of wife and mother.

Another possible explanation for this difference may be early socialization practices. Since the early 70s, families in Singapore have been encouraged to have two children only, and to treat them on an equal basis irrespective of gender. Thus, it is not surprising that parents will encourage their daughters, as they do their sons, to be achievement-oriented so that they may be able to fend for themselves later in life. Also, the pressures from this success-oriented society have driven parents to take measures, such as extra tuition classes, to ensure their childrens' success. Parents acknowledge the fact that their daughters have to be achievement-oriented in this society but not at the expense of their femininity. Children are therefore taught and constantly reminded to comply with the appropriate sex-role standards. Thus, early socialization practices allow females to strive for intellectual and career success but at the same time they are also taught to conform to sex-role standards.

In addition, this study has successfully demonstrated a cross-cultural difference in the conceptualization of success. Most researchers have conveniently accepted Horner's conceptualization of success and assumed its generalizability with other samples. This research shows that this indeed is not true. It was suggested earlier that high FOS women who also exhibit high affiliative behaviour will inhibit their achievement strivings in situations where they may have to compete with close friends. This result was evident when Horner's conceptualization of success, which stresses

competitive, individualistic achievement, was used. Success, as defined by the women in this research, means working hard to attain the goals in life be they intellectual, career or family-oriented, and to feel a sense of satisfaction for one's accomplishments. Furthermore, the pride of success should bring happiness not only to oneself, but also to family and friends. These responses indicate that success is linked to allocentrism which, in turn, is related to affiliation. The subjects indicated that they did not wish to lose any close ties with friends despite their achievements, suggesting that success and affiliation are both important; only when one is seen as blocking the other is there a problem. This definition of success is quite different from Horner's. The present research has demonstrated that Horner's conceptualization of success (defined in western terms) is not generalizable to this culture.

LIMITATIONS

The findings from this research are limited in generalizability. It must be pointed out that only the top ten percent of 'A' level graduates are admitted to NUS, thus the women in this study are a special case. This means that the findings cannot be generalized to the population of Singaporean women.

It is possible that social desirability influences may have biased the results even though complete anonymity was assured.

The validity of the Fear of Success Scale is questioned. This measure was left with only eight items after deleting those with low item-total correlations. A possible explanation for the low reliability of the measure is

that the context of success is not specified. The subjects were, therefore, not able to relate to many of the items.

FUTURE RESEARCH

The present research has proved that the achievement strivings of Singaporean women are quite different from American women. It would, therefore, be more profitable for future research to study the achievement motivation of Singaporean women. This study was unable to find a relationship between FOS and femininity, as well as mother's educational and occupational status. This suggests that FOS is not entirely a women's issue. Further research would, therefore, need to be directed towards an investigation of sex-differences in relation to FOS and achievement motivation.

It is important that future research precisely define the concept of success so as to overcome any problems concerning change of meaning over time and across cultures. It must be realized that Horner's conceptualization of success is dated back to the late sixties and changes in meaning are bound to occur. In line with this suggestion, a potential area of investigation will be to compare an older cohort of women with a younger one so as to ascertain any differences in the meaning of success and the occurrence of FOS.

It is also suggested that research on FOS employ an objective measure together with an idiographic approach to obtain a fuller picture of women's success striving. Objective measures may contain items that are too specific and limiting and thus do not reveal individual differences related to

achievement striving. Such measures may reveal new directions in the FOS literature.

CONCLUSION

This study undermines the construct validity of FOS in a cross-cultural context. The results failed to replicate findings linking FOS to gender variables, locus of control, course choice and educational environment. FOS correlated significantly with affiliative tendency, sensitivity to rejection, idiocentrism-allocentrism, and educational goal. The best predictors of FOS were affiliative tendency and sensitivity to rejection. The evidence shows that Horner's conceptualization of FOS cannot be generalized to Singapore. Two plausible reasons are given to help explain this outcome : (i) the social and economic framework of the country; and (ii) early socialization practices.

In addition, the cross-cultural relevance of success, as perceived by Horner, was examined. It was found that the western concept of success which is individualistic does not generalize to this culture. In Singapore, which is a collectivist, success is meant to be shared with significant others. In light of this finding, it is recommended that future research accurately define success for the sample or culture in question to gain a better understanding and also allow valid conclusions about achievement strivings to be drawn.

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APPENDIX A

BACKGROUND INFORMATION

I. PERSONAL PARTICULARS

1. Age : _____
2. Ethnic group : *Chinese/Malay/Indian.
3. Course of Study : _____
4. Year of study : _____

II. SCHOOL PARTICULARS

5. College/Pre-U Centre last attended :

6. *Co-ed/Nonco-ed.
7. Medium of instruction : *English/Mandarin.
8. State the aggregate point for your best 3 'A' level subjects : _____

III. MOTHER'S PARTICULARS

Tick where applicable

9. Educational Level

No Education	_____
Primary School	_____
Secondary School	_____
College/Pre-U	_____
Tertiary	_____
10. State mother's employment/occupation during the period of your childhood:

* Delete where inapplicable.

APPENDIX B

FEMININITY-MASCULINITY SCALE

Please respond to each adjective on a 1–7 scale indicating how best it describes you.

1= never or almost never true

2= usually not true

3= sometimes true

4= occasionally true

5= often true

6= usually true

7= always or almost always true

Record your answer (1, 2, 3, 4, 5, 6, or 7) in the spaces provided.

DESCRIBE YOURSELF

(F) __ does not use
harsh language

(F) __ gentle

(F) __ nice

(M) __ active

(M) __ decisive

(M) __ intelligent

(N) __ accommodating

(N) __ ethical

(N) __ light-hearted

(F) __ domestic

(F) __ graceful

(F) __ pleasant

(M) __ adventurous

(M) __ dynamic

(M) __ masculine

(N) __ altruistic

(N) __ flexible

(N) __ poised

(F) __ eager to soothe
hurt feelings

(F) __ innocent

(F) __ sensitive

(M) __ assertive

(M) __ enterprising

(M) __ powerful

(N) __ charismatic

(N) __ generous

(N) __ self-sacrificing

(F) __ easily expresses
tender emotions

(F) __ kind

(F) __ soft-spoken

(M) __ clever

(M) __ forceful

(M) __ self-confident

(N) __ cool-headed

(N) __ humane

(N) __ thoughtful

(F) __ feminine

(F) __ loving

(F) __ tender

(M) __ daring

(M) __ independent

(M) __ willing to take
risks

(N) __ easy going

(N) __ intuitive

(N) __ truthful

The (F), (M), and (N) signs refer to the feminine, masculine and neutral items

APPENDIX C

FEAR OF SUCCESS SCALE

This is a measure of personal attitudes. There are no right or wrong answers. Please respond to each question on a 0-6 scale indicating your agreement/disagreement as follows :

- 0=disagree strongly
- 1=disagree mildly
- 2=disagree
- 3=neutral, neither agree nor disagree
- 4=agree
- 5=agree mildly
- 6=agree strongly

Mark your answer (0, 1, 2, 3, 4, 5, or 6) in the brackets provided. Read each item carefully, but give your immediate response.

- (-) 1. I expect other people to fully appreciate my potential. ()1.*
- (+) 2. Often the cost of success is greater than the reward. ()2.*
- (+) 3. For every winner there are several rejected and unhappy losers. ()3.*
- (-) 4. The only way I can prove my worth is by winning a game or doing well on a task. ()4.
- (-) 5. I enjoy telling my friends that I have done something especially well. ()5.*
- (+) 6. It is more important to play the game than to win it. ()6.
- (+) 7. In my attempt to do better than others, I realize I may lose many of my friends. ()7.*
- (-) 8. In competition I try to win no matter what. ()8.
- (+) 9. A person who is at the top faces nothing but a constant struggle to stay there. ()9.*
- (-) 10. I am happy only when I am doing better than others. ()10.
- (+) 11. I think success has been emphasized too much in our culture. ()11.*

- | | |
|--|---------|
| (+) 12. In order to achieve one must give up the fun things
in life. | ()12.* |
| (+) 13. The cost of success is overwhelming responsibility. | ()13.* |
| (-) 14. Achievement commands respect. | ()14.* |
| (+) 15. I become embarrassed when others compliment me
on my work. | ()15.* |
| (+) 16. A successful person is often considered by others to be
both unfriendly and snobbish. | ()16.* |
| (-) 17. When you're on top, everyone looks up to you. | ()17. |
| (+) 18. People's behaviours change for the worst after they
become successful. | ()18.* |
| (+) 19. When competing against another person, I sometimes
feel better if I lose than if I win. | ()19.* |
| (+) 20. Once you're on top everyone is your best friend and no
one is your acquaintance. | ()20.* |
| (-) 21. When you're the best, more opportunities will be
available to you. | ()21.* |
| (+) 22. Even when I do well on a task, I sometimes feel like a
phony or a fraud. | ()22.* |
| (+) 23. I believe that successful people are often sad and lonely. | ()23.* |
| (-) 24. The rewards of a successful competition are greater
than those received from cooperation. | ()24. |
| (+) 25. When I am on top the responsibility makes me feel
uneasy. | ()25.* |
| (-) 26. It is extremely important for me to do well in all things
that I undertake. | ()26. |
| (-) 27. I believe I will be more successful than most of the
people I know. | ()27. |

The (+) and (–) signs preceding each item indicate the direction of scoring.

* Items deleted from final analysis due to low Item-Total Correlations (< .2).

APPENDIX D

LOCUS OF CONTROL SCALE

This is a measure of personal beliefs; obviously there are no right or wrong answers. Please express your reaction to each statement by indicating your response on a 0-6 scale as follows :

- 0= disagree strongly
- 1= disagree mildly
- 2= disagree
- 3= neutral, neither agree nor disagree
- 4= agree
- 5= agree mildly
- 6= agree strongly

Mark your answer (0, 1, 2, 3, 4, 5, or 6) in the brackets provided. Read each item carefully, but give your immediate response.

- (-) 1. People's misfortunes result from the mistakes they make. ()1.*
- (+) 2. Without the right opportunities one cannot be successful. ()2.
- (-) 3. There is really no such thing as luck. ()3.
- (+) 4. I have often found that what is going to happen will happen. ()4.*
- (-) 5. In the long run people get the respect they deserve in this world. ()5.*
- (+) 6. Most people do not realize the extent to which their lives are controlled by accidental happenings. ()6.
- (-) 7. Trusting to fate has never turned out as well for me as making a decision to take a definite course of action. ()7.*
- (+) 8. Getting a good job depends mainly on being in the right place at the right time. ()8.*
- (-) 9. Becoming a success is a matter of hard work. ()9.
- (+) 10. In the long run the bad things that happen to us are balanced by the good ones. ()10.*

- | | |
|---|---------|
| (-) 11. What happens to me is my own doing. | ()11.* |
| (+) 12. Unfortunately, an individual's worth often passes unrecognized no matter how hard she/he tries. | ()12.* |
| (-) 13. In my case getting what I want has little or nothing to do with luck. | ()13. |
| (+) 14. Many times I feel that I have little influence over the things that happen to me. | ()14.* |
| (-) 15. Most misfortunes are the result of lack of ability, ignorance, laziness or all three. | ()15.* |
| (+) 16. Many times success tends to be so unrelated to work that making an effort is really useless. | ()16.* |
| (-) 17. It is impossible for me to believe that chance or luck plays an important role in my life. | ()17. |
| (+) 18. Sometimes I feel that I do not have enough control over the direction my life is taking. | ()18.* |
| (-) 19. Getting people to do the right things depends on ability. | ()19.* |
| (+) 20. Many of the unhappy things in people's lives are partly due to bad luck. | ()20. |

The (+) and (-) signs preceding each item indicate the direction of the scoring.

* Items deleted in final analysis due to low Item-Total Correlations (< .2).

APPENDIX E

IDIOCENTRISM-ALLOCENTRISM MEASURE

In this section you are asked to continue and complete the sentence. You may write down anything that comes to your mind, but please write each new idea on a different line. Do not spend too much time thinking about your responses.

I am

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____

APPENDIX F

ATTITUDES TOWARDS WOMEN SCALE

This section deals with the attitudes towards the roles of women in society which different people have. Please express your reaction to each statement by indicating your response on a 0-6 scale as follows :

0= disagree strongly

1= disagree mildly

2= disagree

3= neutral, neither agree nor disagree

4= agree

5= agree mildly

6= agree strongly

Mark your answer (0, 1, 2, 3, 4, 5, or 6) in the brackets provided. Do not spend too much time on any one item.

- (-) 1. Swearing and obscenity are more repulsive in the speech of a woman than a man. ()1.*
- (+) 2. Under modern economic conditions with women being active outside the home, men should share in household tasks such as washing and doing laundry. ()2.
- (+) 3. A woman should be as free as a man to propose marriage. ()3.
- (-) 4. Women should worry less about their rights and more about becoming good wives and mothers. ()4.
- (+) 5. Women should assume their rightful place in business and all the professions along with men. ()5.
- (-) 6. A woman should not expect to go to exactly the same places or to have quite the same freedom of action as a man. ()6.
- (+) 7. The intellectual leadership of a community should be largely in the hands of men. ()7.*
- (+) 8. Women should be given equal opportunity with men for apprenticeship in the trades. ()8.
- (+) 9. Women earning as much as their male companions should bear equally the expense when they go out together. ()9.
- (-)10. Sons in a family should be given more encouragement to go to university than daughters. ()10.

- (-)11. In general, the father should have greater authority than the mother in the bringing up of children. ()11.
- (+)12. Economic and social freedom is worth far more to women than the acceptance of the ideal of femininity which has been set up by men. ()12.
- (-)13. There are many jobs in which men should be given preference over women in being hired or promoted. ()13.
- (-)14. Women with children should not work outside the home if they do not have to financially. ()14.
- (+)15. The relative amounts of time and energy to be devoted to household duties on one hand and career on the other should be determined by personal desires and interests rather than by sex. ()15.
- (+)16. Women should take increasing responsibility for leadership in solving the intellectual and social problems of the day. ()16.
- (+)17. There should be a strict merit system in job appointment and promotion without regard to sex. ()17.
- (-)18. It is only fair that male workers should receive more pay than women even for identical work. ()18.
- (-)19. Women should be concerned with their duties of childrearing and housetending rather than with desires for professional and business careers. ()19.
- (+)20. The intellectual equality of women with men is perfectly obvious. ()20.
- (+)21. Society should regard the labour of women as valuable as that of men. ()21.
- (-)22. A wife should make every effort to minimize irritation and inconvenience to the male head of the family. ()22.
- (+)23. A modern girl is entitled to the same freedom from regulation and control that is given to the moder boy. ()23.
- (+)24. Husbands and wives should be equal partners in planning the family budget. ()24.

The (+) and (-) signs preceding each item indicate the direction of scoring.

* Items 1 and 7 were deleted from the final analysis due to low (< .2) Item - Total Correlations.

APPENDIX G

AFFILIATIVE TENDENCY AND SENSITIVITY TO REJECTION SCALES

Please use the following scale to indicate the degree of your agreement/disagreement with each of the statements :

- 0= disagree strongly
- 1= disagree mildly
- 2= disagree
- 3= neutral, neither agree nor disagree
- 4= agree
- 5= agree mildly
- 6= agree strongly

Please read each item carefully, and then record your answer (0, 1, 2, 3, 4, 5, or 6) in the brackets provided.

- (-) 1. When I'm introduced to someone new, I don't make much effort to be liked. ()1.
- (+) 2. I prefer a leader who is friendly and easy to talk to over one who is more aloof and respected by his followers. ()2.
- (+) 3. When I'm not feeling well, I would rather be with others than alone. ()3.*
- (-) 4. If I had to choose between the two, I would rather be considered intelligent than sociable. ()4.*
- (+) 5. Having friends is very important to me. ()5.
- (-) 6. I sometimes prefer being with strangers than with familiar people. ()6.*
- (-) 7. If I don't enjoy a party, I don't mind being the first one to leave. ()7.*
- (+) 8. I would rather express open appreciation to others most of the time than reserve such feelings for special occasions. ()8.*
- (-) 9. I enjoy a good movie more than a big party. ()9.*
- (+) 10. I like to make as many friends as I can. ()10.
- (-) 11. I would rather travel abroad starting my trip alone than with one or two friends. ()11.
- (+) 12. After I meet someone I did not get along with, I spend time thinking about arranging another, more pleasant meeting. ()12.*

- (-) 13. I think fame is more rewarding than friendship. ()13.
- (-) 14. I prefer independent work to cooperative effort. ()14.
- (+) 15. I would be very hurt if a close friend should contradict me in public. ()15.
- (-) 16. When a group is discussing an important matter, I like my feelings to be known. ()16.*
- (+) 17. I tend to associate less with people who are critical. ()17.
- (+) 18. I think that any experience is more significant when shared with a friend. ()18.
- (+) 19. When I see someone I know walking down the road, I am usually the first one to say hello. ()19.
- (-) 20. I prefer the independence which comes from lack of attachments to the good and warm feelings associated with close ties. ()20.
- (+) 21. I join clubs because it is such a good way of making friends. ()21.
- (+) 22. I would rather serve in a position to which my friends had nominated me than be appointed to an office by strangers. ()22.*
- (-) 23. I often visit people without being invited. ()23.
- (-) 24. I don't mind going some place even if I know that some of the people there don't like me. ()24.
- (-) 25. I don't believe in showing overt affection towards friends. ()25.
- (-) 26. I would rather go right to sleep at night than talk to someone else about the day's activities. ()26.
- (-) 27. I have very few close friends. ()27.
- (+) 28. I try to make myself familiar with a group before I take a definite stand on a controversial issue. ()28.
- (-) 29. When two of my friends are arguing I don't mind taking sides to support the one I agree with. ()29.*
- (+) 30. If I ask someone to go someplace with me and she/he refuses, I'm hesitant to ask her/him again. ()30.
- (+) 31. I am cautious about expressing my opinions until I know people quite well. ()31.
- (+) 32. If I can't understand what someone says in a discussion, I will let it pass rather than interrupt to ask her/him to repeat it. ()32.*
- (-) 33. I enjoy discussing controversial topics like politics and religion. ()33.*

- (-) 34. When I'm with people I don't know, it doesn't matter much to me if they like me or not. ()34.*
- (+) 35. If I had to choose I would rather have strong attachments to my friends than have them regard me as witty and clever. ()35.
- (+) 36. I feel uneasy about asking someone to return something she/he borrowed from me. ()36.*
- (-) 37. I criticize people openly and expect them to do the same. ()37.*
- (-) 38. I can still enjoy a party even if I find that I am not properly dressed for the occasion. ()38.
- (-) 39. I prefer individual activities such as crossword puzzles to group ones such as scrabble or monopoly. ()39.
- (+) 40. I sometimes take criticisms too hard. ()40.
- (+) 41. If someone dislikes me, I tend to avoid her/him. ()41.
- (-) 42. It seldom embarrasses me to ask someone for a favour. ()42.*
- (+) 43. I am much more attracted to warm, open people than I am to reserved ones. ()43.
- (+) 44. I seldom contradict people for fear of hurting them. ()44.
- (+) 45. I am very sensitive to any signs that a person might not want to talk to me. ()45.
- (+) 46. Whenever I go somewhere where I know no one, I always like to have a friend come along. ()46.*
- (-) 47. I often say what I believe, even when it offends the person with whom I am speaking. ()47.*
- (-) 48. I would rather read an interesting book or go to the movies than spend time with friends. ()48.*
- (+) 49. When traveling, I prefer meeting people to simply enjoying the scenery or going places alone. ()49.*
- (-) 50. I enjoy going to parties where I don't know anyone. ()50.

NOTE

The Affiliative Tendency Scale items are 1, 2, 3, 4, 5, 8, 9, 10, 11, 12, 13, 14, 18, 19, 20, 21, 22, 25, 26, 27, 34, 35, 39, 43, 48, 49.

The Sensitivity to Rejection Scale items are 6, 7, 15, 16, 17, 23, 24, 28, 29, 30, 31, 32, 33, 36, 37, 38, 40, 41, 42, 44, 45, 46, 47, 50.

The (+) and (-) signs preceding each item indicate the direction of scoring.

* Items deleted in the final analysis due to low Item-total Correlations (<.2).

APPENDIX H

Please answer question 1. by circling the alternative which best reflects your educational goal, and then write an answer to question 2.

1. What is the least amount of education that will satisfy you?

- a) a general degree
- b) an honor's degree
- c) a master's degree
- d) an advanced professional degree
(Ph.D, MD, law degree, etc).

2. What does success mean to you?

APPENDIX I

The purpose of this questionnaire is to survey the attitudes of Singaporean university women. All information provided will remain confidential and anonymous. I will appreciate your cooperation in answering each question honestly.

This research is being conducted as part of my Master's thesis.

Thank you for your invaluable help.

Rusbir Kaur

APPENDIX J

Means, Standard Deviations and Score Ranges of Scales

Scale	M	SD	<u>Range of Scores</u>	
			Min	Max
Femininity	4.61	.85	2.33	7.00
Masculinity	3.79	.82	1.87	6.60
FOSS	82.02	11.47	50.00	106.00
Locus of Control	60.43	8.71	39.00	109.00
Idiocentrism- Allocentrism	10.06	12.14	0	55
AWS	94.76	13.45	64.00	130.00
Affiliative Tendency	96.13	14.12	60.00	150.00
Sensitivity to Rejection	84.27	12.03	50.00	120.00

APPENDIX K

Pearson Product-Moment Correlations between Continuous Variables

Variables	2	3	4	5	6	7	8	9	10	11
1. Age	.16	-.21	.12	-.01	-.03	-.20*	.00	-.04	.00	-.09
2. Academic Ability	–	-.21	.12	-.01	-.03	-.06	-.16	.02	-.32**	-.19
3. Mother's Educ.	–	–	-.37**	.03	-.20*	.11	.21*	.17*	.09	.16
4. Mother's Occup. Status	–	–	–	.03	.03	-.13	.11	.09	.05	.01
5. FOSS	–	–	–	–	.00	.19*	.08	.30**	-.20*	-.18*
6. Locus of Control	–	–	–	–	–	.08	-.08	-.07	.01	-.03
7. Idio-Allo	–	–	–	–	–	–	.01	.20*	.02	-.12
8. AWS	–	–	–	–	–	–	–	.42**	.40**	.25*
9. Affiliative Tendency	–	–	–	–	–	–	–	–	.32**	-.09
10. Sensitivity to Rejection	–	–	–	–	–	–	–	–	–	.04
11. Educ. Goal	–	–	–	–	–	–	–	–	–	–

* $p < .05$

** $p \leq .001$